Community for Data Integration (CDI) FY18 Request for Proposals Process

Leslie Hsu, CDI Coordinator

January 16, 2018

1-2 pm ET

Topics

- New in FY18
- Overview of CDI
- Background and overview of RFP
- Examples of successful projects
- Overview of RFP Manager
- Key Dates
- Questions

New in FY18

- FY18 Topical Focus - Risk Assessment and Hazard-exposure
- Method for finding web development or programming skilled collaborators - see Collaboration Forum
- Lightning SOI Presentation Session, February 6, 1pm ET - one-slide template to be provided
- No closing voting session - rank will be communicated by email and webpage
- Each award will be distributed from CDI to the lead Science Center only, not multiple centers

CDI - Overview

- Chartered as Council on Data Integration in 2009 to:
  - Lead development of Data Integration Strategy
  - Recommend data integration guidelines
  - Promote USGS-wide data integration
- Evolved into an open Community of Practice

Executive Sponsors:
Tim Quinn (left) and Kevin Gallagher (right)

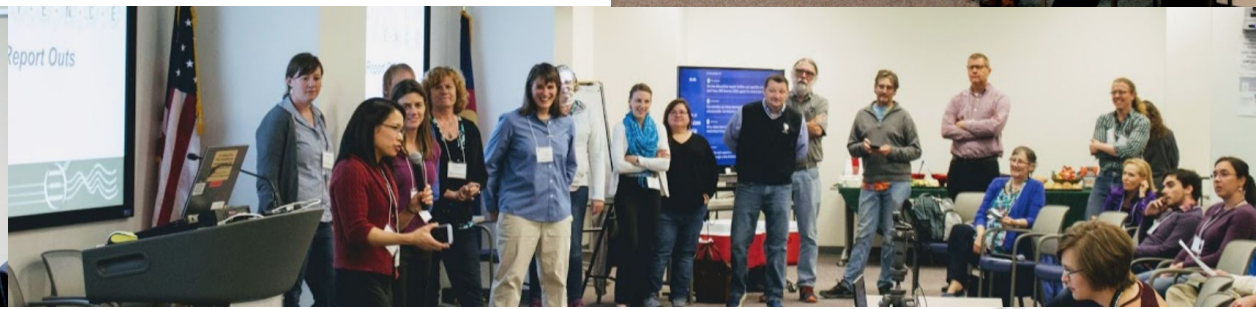
Communities of practice are groups of people who share a concern or a passion for something they do and learn how to do it better as they interact regularly – Etienne Wenger, 2011

The CDI Purpose

- Advance understanding of Earth systems through enhanced use of data and information
- Provide a forum for sharing ideas and learning new skills
- Increase the visibility of work with data and information

CDI Today

- **Monthly Forum**
  - 2nd Wednesday at 11 ET
- **Collaboration Areas**
- **Annual Workshop/Webinar**
- **RFP Process**



FY18 CDI RFP

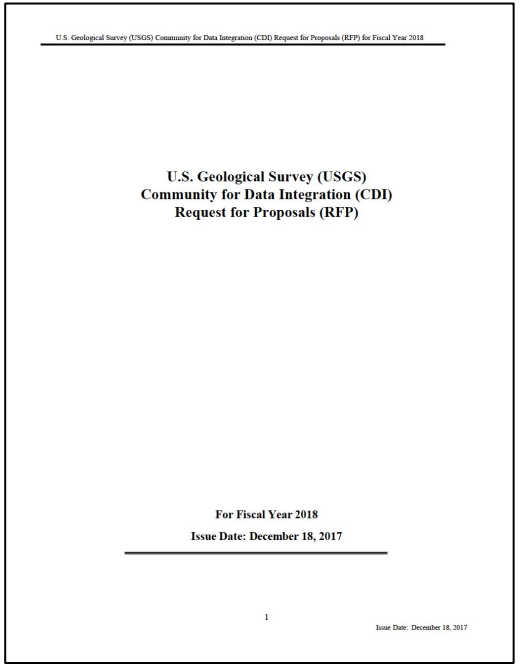
https://my.usgs.gov/confluence/display/cdi/2018+Proposals

2018 Proposals

Created by Hsu, Leslie, last modified on Jan 03, 2018

This page describes the Fiscal Year 2018 Community for Data Integration (CDI) Request for Proposals (RFP). Through the annual CDI proposal process, funds have been awarded for projects focusing on data integration for interdisciplinary research, innovative data management, and demonstrations of practical use of new technologies.

- Guidance Document
- The CDI FY18 Proposals Process
  - New in FY18
- Estimated Schedule
- Related Documents and Forms
- Collaboration Forum


U.S. Geological Survey (USGS) Community for Data Integration (CDI) Request for Proposals (RFP) for Fiscal Year 2018

U.S. Geological Survey (USGS)
Community for Data Integration (CDI)
Request for Proposals (RFP)

For Fiscal Year 2018

Issue Date: December 18, 2017

1

Issue Date: December 18, 2017

2 Phase RFP

Phase 1) Statement of Interest

- 1.5 page document
- Relate to Science Support Framework, Guiding Principles, and Evaluation Criteria
- Lightning presentations to introduce ideas to the community (February 6, 2018)
- Voting by CDI Community Members
- ~20 top ranked SOIs invited to submit full proposal

Phase 2) Invited Full Proposal

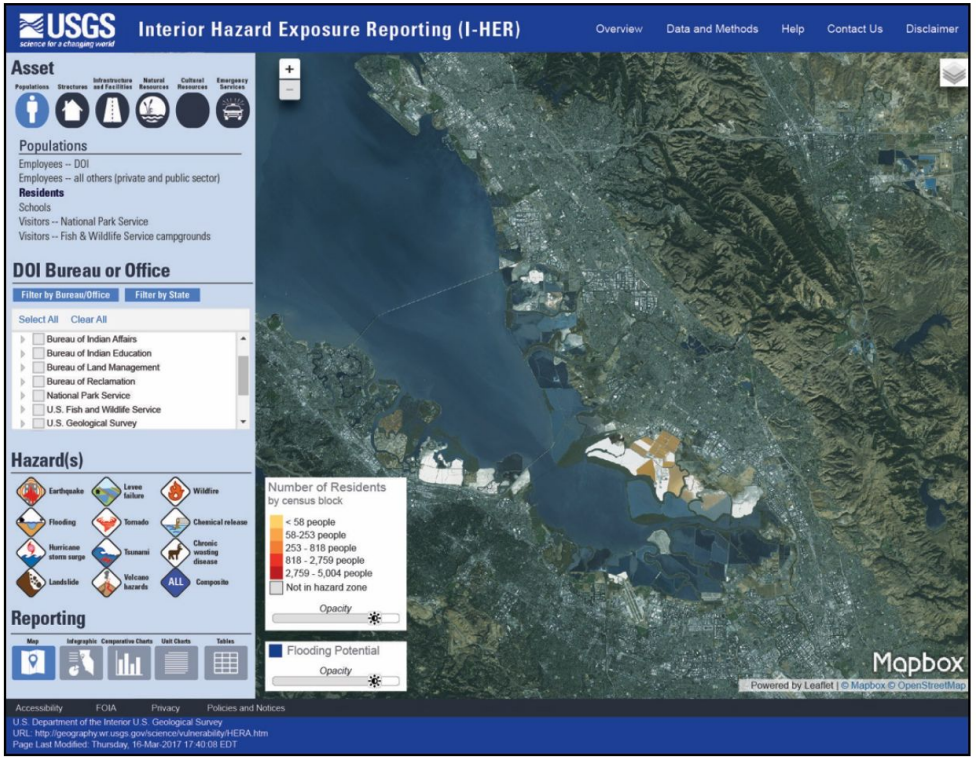
- Proposal narrative - 7 page max
- Not including general public summary, detailed budget, data management planning form, letters of support, CVs
- Relate to Science Support Framework, Guiding Principles, and Evaluation Criteria
- Evaluated by formal Review Panel
- Recommendations presented to CDI Executive Sponsors for selection and award

Details of the FY18 RFP

- Eligibility: USGS employee must be PI, but collaboration is encouraged
- Projects complete in 3-6 months
- Mid Project and End of Project Reporting
- Required to include travel $ for 2018 conference (Use ESIP Summer Meeting in Tucson, AZ, if no other disciplinary conference applies).
- All results should be publicly available (www.usgs.gov/cdi)
  - Including software products
- Topical focus: Risk Assessment and Hazard-exposure - approximately 50% of funding to be directed toward this focus

FY18 RFP Topic focus: Risk and Hazard

- Topical focus: Risk Assessment and Hazard-exposure - approximately 50% of funding to be directed toward this focus



Code Repositories

- Examples: Previous repos on GitHub or Bitbucket
- Gitlab recently available to USGS (e.g., code.usgs.gov)
- PIs will be given options to create repositories
- Repositories should be public after the completion of the project.

Funding

- Max request = $50K
- CDI funds can be used for salary, travel other expenses
- CDI funds CANNOT be used for field work or Core Science System Mission Area federal employees salary
- Proposal must have 30% matching funds from salary, travel, other grants, etc.

Factors of the FY18 RFP

- **Science Support Framework (SSF)**
  - Applicants select top 3 SSF elements. http://www.usgs.gov/cdi/cdi-ssf/cdi-ssf-components.pdf
- **Guiding Principles**
- **Evaluation Criteria**

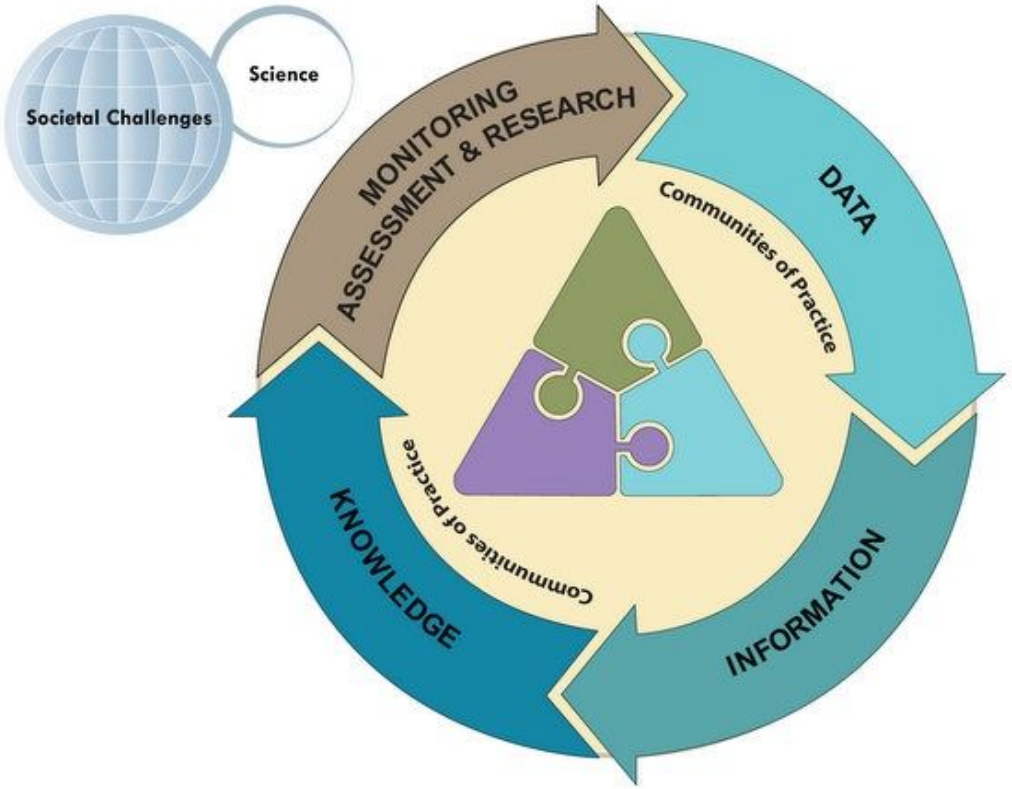
Big Picture

Communities of Practice

Computational Tools & Services

Management, Policy & Standards

Data & Information Assets

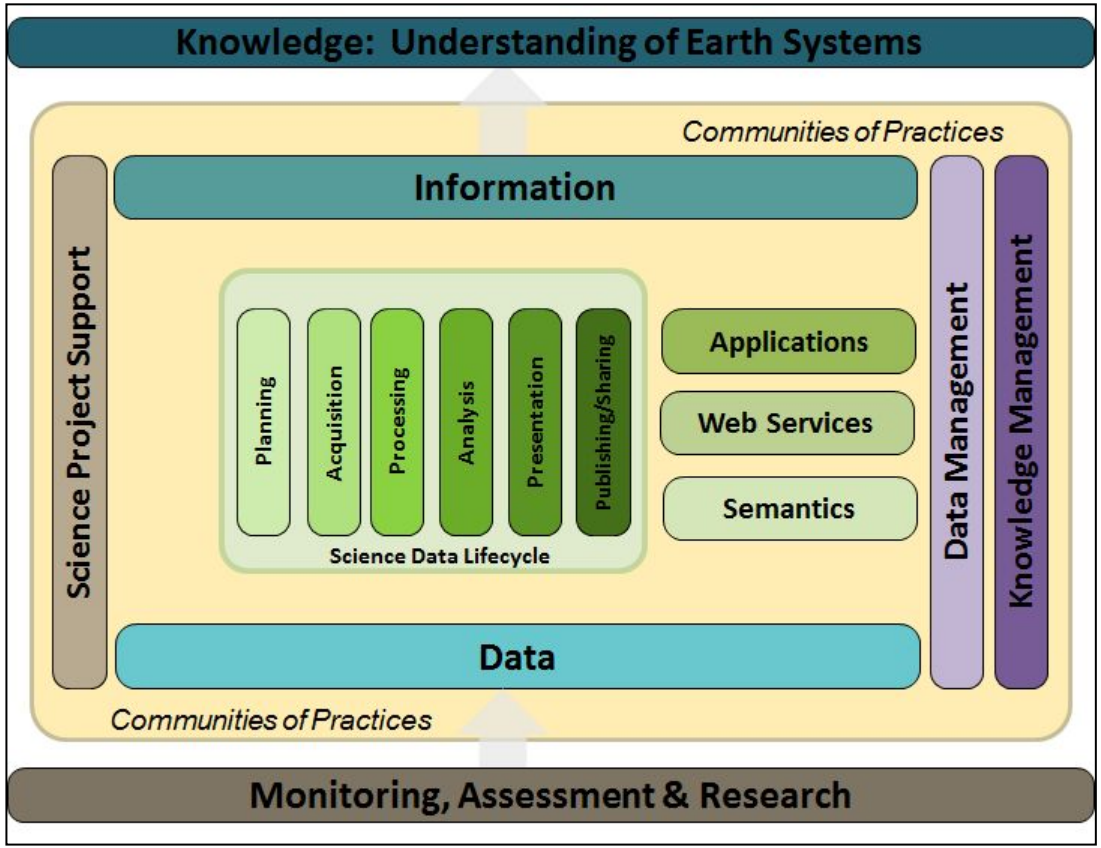


Upper Level Categories

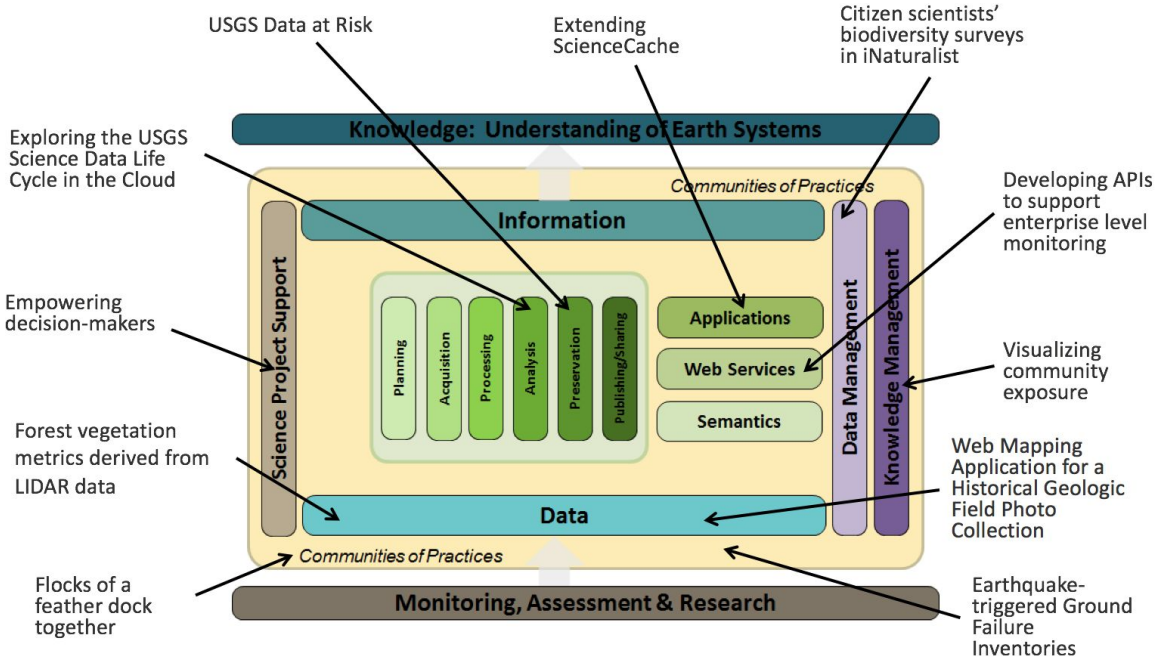
Data & Information Assets	**Data** Persistent archives, data registries, catalogs, data, metadata, derived information products, knowledge bases, vocabularies/ontologies.
Computational Tools & Services	**Technology** Applications, web services, data discovery tools, models, semantic services & tools, infrastructure, data brokers and visualization tools.
Management, Policy & Standards	**Business** Data stewardship, implementation of the Data Management Life Cycle, knowledge management, data standards, governance and policy.
Communities of Practice	**People** Scientists, CDI as a whole, CDI Working Groups, external partners, and the human network of scientific domain collaborators.

CDI Science Support Framework

The foundation for sharing science



CDI Science Support Framework (with FY17 projects)



Guiding Principles

- Focus on targeted efforts that yield near-term benefits to Earth and biological science
- Leverage existing capabilities and data
- Implement and demonstrate innovative solutions (e.g. methodologies, tools, or integration concepts) that could be used or replicated by others at scales from project to enterprise
- Preserve, expose, and improve access to Earth and biological science data, models, and other outputs
- Develop, organize, and share knowledge and best practices in data integration

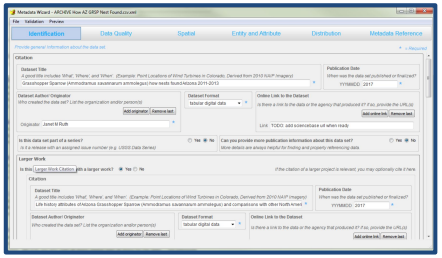
Evaluation Criteria

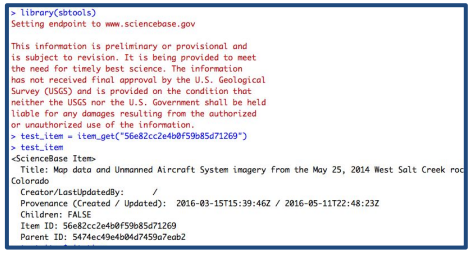
Scope (25%)	• Is there a demonstrated need for the effort/activity? • How much does the proposal contribute to the guiding principles and element(s) of the CDI Science Support Framework? • Is there potential impact beyond a single Program, Center, Mission Area, or Region? • What is the anticipated return on investment (e.g. cost savings, code utilization, publications, operational efficiencies, etc.)?
Technical Approach (25%)	• Is the technical approach applied to the problem reasonable? • Is the approach innovative? • Does it employ a proven, reliable technique that is appropriate to the problem?
Project Experience and Collaboration (25%)	• Does the project team have the appropriate experience, special qualifications, and skills for successful completion of the project.? • Have inter-disciplinary or cross-mission area/region collaboration and partnerships been pursued where appropriate?

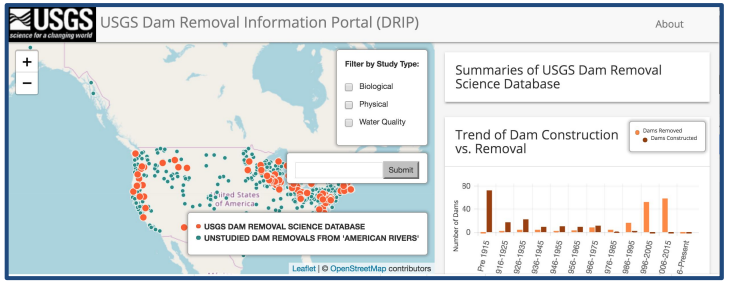
Evaluation Criteria (2)

Sustainability, Outreach, and Communication (15%)	• Does the proposal describe the intended sustainability of the project deliverables (products, tools, services, metadata) for long-term access, reusability, and potential for integration? • Will all products resulting from the project be freely shared and made available, without charge or restriction, to the CDI, the broader USGS community, and beyond as appropriate?
Budget Justification (5%)	• Is the budget at or below $50,000 and does it meet the minimum 30% in-kind match? • Are salaries and contractor costs, travel, and equipment/ publication costs justified and appropriate to project needs? • If the proposal lists contractor support, does the proposal describe how the contract work will be managed and documented?
Timeline (5%)	• Are the project phases and milestones described in the technical approach? • Is the proposed workload feasible given the project duration.

Example Past CDI Projects



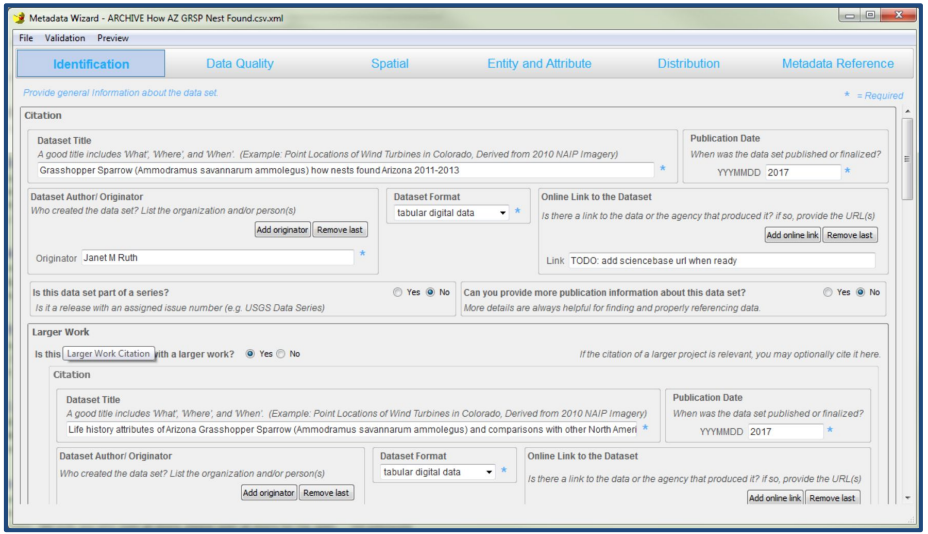




Metadata Wizard (2.0!)

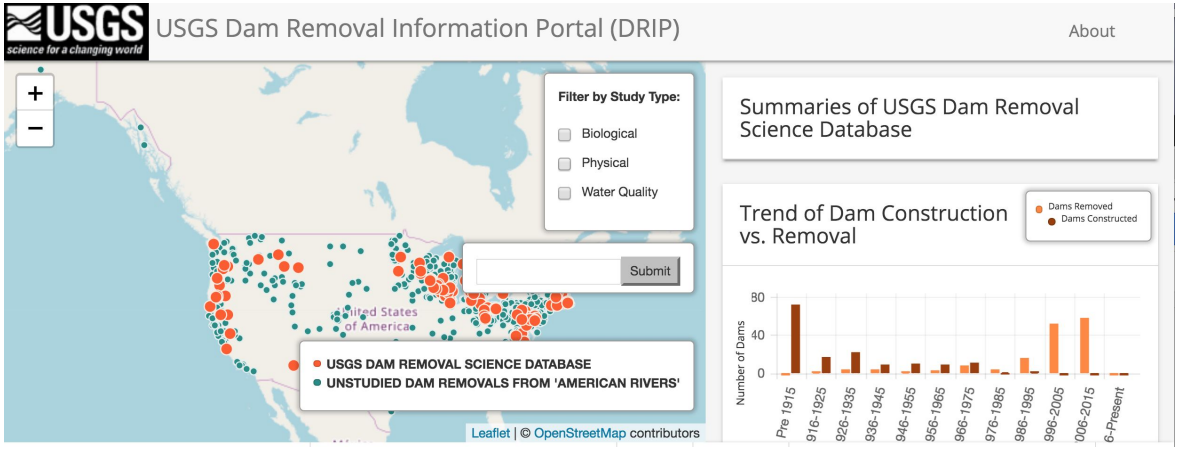
- Funded in 2013
- Easy-to-Use Tool for FGDC Metadata Creation
- Helps to create required metadata for USGS publication.

- Brought under USGS Science Data Management Branch supported tools.
- Metadata Wizard V 2.x now available, no ESRI dependencies, Mac friendly. (as of 12/18/17)



DRIP: Dam Removal Information Portal

- Funded in 2015
- OFR describing methods inspired other CDI projects to take similar steps to publish and expose datasets using existing infrastructure.
- Continues with related projects funded from other sources.



sbtools: an R package for ScienceBase

- Funded in 2015
- Tool to more easily access ScienceBase through R (command line)

- A command-line tool easy enough for the CDI coordinator to use!
- Increases accessibility to ScienceBase data, information, and services.

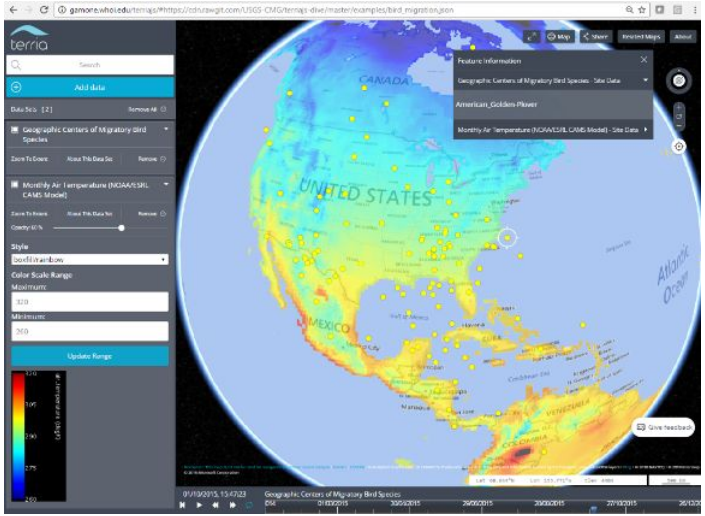
```
> library(sbtools)
Setting endpoint to www.sciencebase.gov

This information is preliminary or provisional and
is subject to revision. It is being provided to meet
the need for timely best science. The information
has not received final approval by the U.S. Geological
Survey (USGS) and is provided on the condition that
neither the USGS nor the U.S. Government shall be held
liable for any damages resulting from the authorized
or unauthorized use of the information.
> test_item = item_get("56e82cc2e4b0f59b85d71269")
> test_item
<ScienceBase Item>
  Title: Map data and Unmanned Aircraft System imagery from the May 25, 2014 West Salt Creek roc
Colorado
  Creator/LastUpdatedBy:      /
  Provenance (Created / Updated):  2016-03-15T15:39:46Z / 2016-05-11T22:48:23Z
  Children: FALSE
  Item ID: 56e82cc2e4b0f59b85d71269
  Parent ID: 5474ec49e4b04d7459a7eab2
```

terriaJS - Evaluating a new open-source, standards-based framework for web portal development

- Funded in 2016
- Assessed a framework for creating web portals by non-developers with the current USGS landscape of available tools.

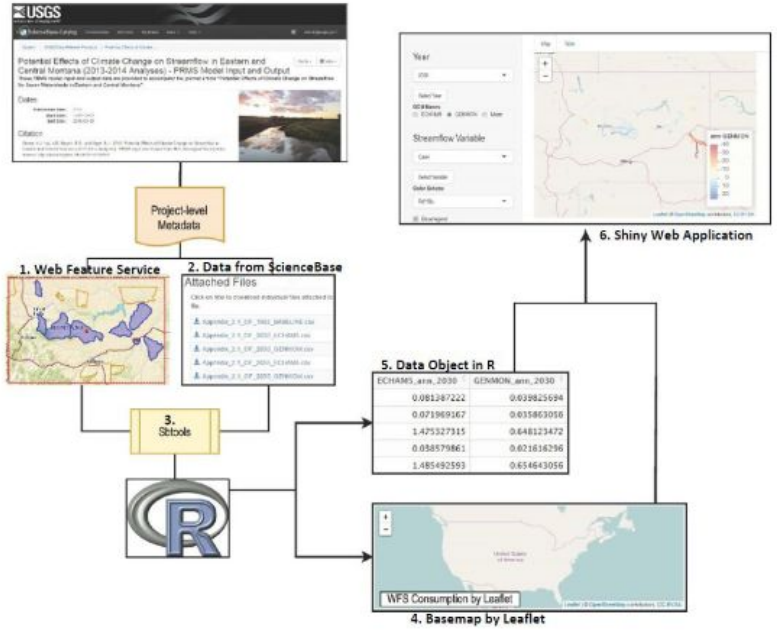
- Use of this framework being considered by multiple USGS groups including the current Risk Map Project.



Recommended practices for publishing digital data through Sciencebase

- Funded in 2016
- Documented processes for USGS scientists to organize and share data using ScienceBase, and to provide an example interactive mapping application to display those data

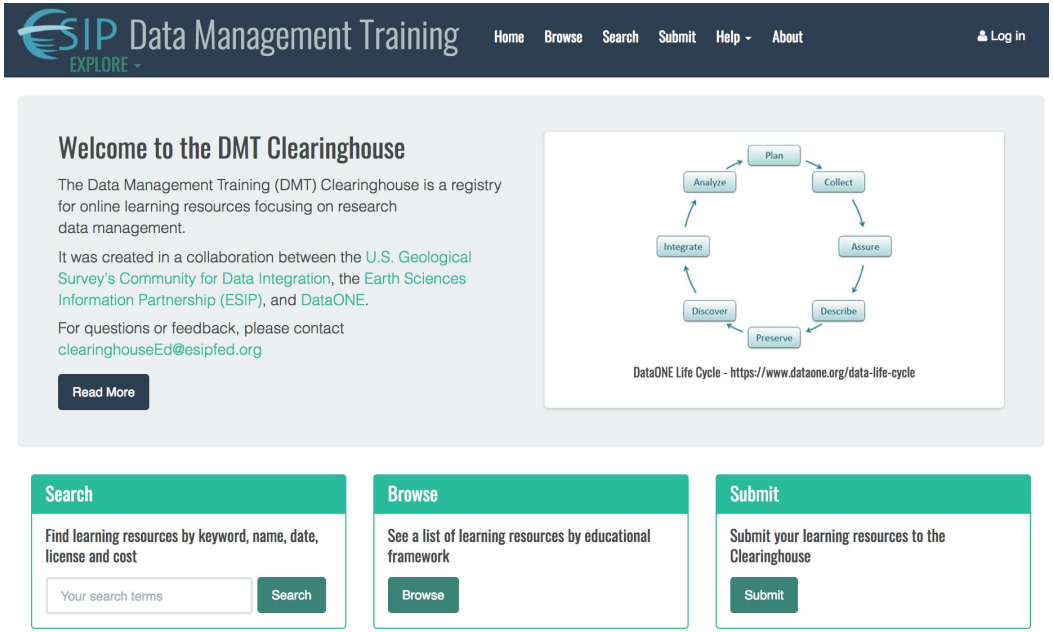
- Topic in high demand: webinar outside of CDI attracted over 100 participants.



Data Management Training Clearinghouse

- Funded in 2016
- Tool to discover and evaluate data management training modules.

- Now being used as a platform for the American Geophysical Union's FAIR Data project to organize training resources for scientists.



More information on past projects

Browse past projects to see what has been funded by CDI.

- CDI Webpage (by topic or year)
- ScienceBase CDI Community (by year)
- Monthly Meeting presentations on many projects*
- Annual Reports have project summaries*

*To access *all* of the materials, email cdi@usgs.gov to become a CDI member.

Proposal Concepts *not* CDI focused

- Supporting the collection of new data or field research
- Monitoring, assessment, or dataset creation projects. Although CDI may fund the creation of some broadly-usable (“foundational”) data content, this is normally considered out of scope
- Projects that would normally be funded by individual Program Areas or other proposal processes such as the John Wesley Powell Center for Analysis and Synthesis, Center of Excellence for Geographic Information Science (CEGIS), Innovation Center for Earth Sciences (ICES), and Office of Organizational and Employee Development (OED). (Explanation of different funding opportunities.)

RFP Manager Live Demo

- **Live demo!**
- **https://my.usgs.gov/CDI_RFP**

Proposal Submission: RFP Manager

Community for Data Integration Funding Opportunity

Login

Funding Opportunity List > CDI FY18 Request for Proposals CDI Voting

CDI FY18 Request for Proposals

Please click **Registration** below to register before submitting your proposal.

Name: CDI FY18 Request for Proposals

Submission Period: December 18, 2017 12:00 AM MST - February 1, 2018 3:00 PM MST

Registration

To register for this funding opportunity and submit proposal materials, click **Registration**. Please note that you may only submit one Statement of Interest (or Proposal) per registration.

→ **DOI employees** and ***myUSGS* users**: Click **Registration**. (If you have already registered, click Registration to access your registration and edit your contact information, submit proposal materials, or delete your registration.)

→ **Public users**: Click **Registration** and then input your preferred e-mail address when prompted. After entering your e-mail address, you will receive an email that contains a link. Use this link to confirm your registration (mandatory) as well as to return to your registration in order to edit your contact information, submit proposal materials, or delete your registration.

For the full FY18 CDI RFP requirements, please see the CDI 2018 Proposals Page.

For more information on the Elements of the CDI Science Support Framework (SSF), please view the following link: http://www.usgs.gov/cdi/cdi-ssf/cdi-ssf-components.pdf

For more information on the Science Data Lifecycle Model, please view the following link: http://pubs.usgs.gov/of/2013/1265/pdf/of2013-1265.pdf

RFP Manager (cont.)

Community for Data Integration Funding Opportunity

Welcome to the CDI FY18 Request for Proposals.

To register:

If you are a **Department of the Interior** employee or have a ***myUSGS*** user account, please log in.

NOTE: If you have already registered, logging in will take you to your contact information. From there you may edit your contact information or submit proposal materials.

If you are **not** a Department of the Interior employee and do not have a *myUSGS* user account:

Please type your preferred e-mail address here: Submit

NOTE: If you have already registered, enter the e-mail address you used when registering to have the Funding Opportunity system send you an e-mail that contains a link that when clicked on will take you to your registration contact information. Once there you will be able to edit your contact information or submit proposal materials.

Contact Information

ID:	CDI16-HL5490
Application Stage:	**Registered**
Submission Title:	unnamed submission
Registrant E-Mail:	lhsu@usgs.gov
Last Name:	Hsu
First Name:	Leslie
Mission Area:	
Region:	
OrcId:	
Title:	CDI Coordinator
Organization:	Science Data Management, CSAS
PI E-Mail:	lhsu@usgs.gov
Phone:	3032024080
Address:	
City:	
State:	
Zip:	
Country:	
Co-PIs or Collaborators:	(none listed)
Lead Cost Center:	
Project Description:	
List of anticipated deliverables from the project:	
Total Budget:	
In-Kind Match:	
Notes, Comments:	

Click **Complete/Edit Registration** to complete or edit your registration. **Always complete this step** as there may be a series of questions that are part of your registration! To cancel your registration, click on **Cancel registration** (This step cannot be undone).

Complete/Edit Registration Cancel This Registration

Submissions

Statement Of Interest (SOI)

Click on the **Add SOI** button below to upload a Statement Of Interest PDF for this Funding Opportunity. This registration allows you to submit only one SOI.

Add SOI SOI must be in PDF form to be accepted. (file size limit: 10MB)

Your Submission is ***NOT complete***. It is missing the following required piece(s):

- The **Statement Of Interest** PDF document
- **In-Kind Match** is missing
- **Project Description** is missing

Your application will reach the **SOI Submitted** stage once all the required input is provided.

Submissions

Statement Of Interest (SOI)

Click on the **Add SOI** button below to upload a Statement Of Interest PDF for this Funding Opportunity. This registration allows you to submit only one SOI.

Add SOI SOI must be in PDF form to be accepted. (file size limit: 10MB)

Once finished with the submission process, simply close this page or use the Exit button to return to the funding opportunity page.

Exit

Tips and Observations

- Communicate potential for partnerships and reusability – Use the Collaboration Forum
- RFP Manager tips
  - Save/update often, compose text on external text editor
- Budget – double check that you have followed all guidelines
  - Travel to a conference to present project. If no disciplinary meeting exists, use the ESIP 2018 Summer Meeting in Tucson, AZ (recently changed locations from San Diego)
- Visit the FAQ page

SOI Voting Process

- Lightning Presentations to open the voting session - February 6, 1pm ET
- Community voting through UserVoice system
  - Must be a CDI Member (email: cdi@usgs.gov)
  - Consider all SOIs before voting
  - Community can comment on SOIs – important for PIs to respond
- SOI close of voting (no session) – February 15, 5pm ET
- Top ~20 full proposals selected from all SOIs submitted. Based on variety of factors:
  - # of votes
  - # individual voters
  - Topical focus, USGS emerging priorities

Key Dates in 2018

February 1 @ 5 pm ET	**Statements of Interest (SOI) Due**
February 6 @ 1pm ET	SOI Lightning Presentation Session
February 15 @ 5pm ET	Comment and Voting Period Closes
February 26	Invite Full Proposal Submissions
March 22	Full Proposals Due
Early April	Full Proposal Review Panel
April 16	Awarded Projects Announced

Questions?

Email: cdi@usgs.gov

Website: http://www.usgs.gov/cdi

RFP Announcement:

https://my.usgs.gov/confluence/display/cdi/2018+Proposals